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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,991	07/16/2007	Laurentinus Wilhelmus Steenbakkers	4662-202	8163
23117	7590	10/01/2007	EXAMINER	
NIXON & VANDERHYE, PC			BARRY, CHESTER T	
901 NORTH GLEBE ROAD, 11TH FLOOR			ART UNIT	PAPER NUMBER
ARLINGTON, VA 22203			1724	
MAIL DATE		DELIVERY MODE		
10/01/2007		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/582,991	STEENBAKKERS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Chester T. Barry	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 15 June 2006.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 11 is/are allowed.

6)  Claim(s) 1-10 and 12 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/15/06.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5)  Notice of Informal Patent Application  
6)  Other: \_\_\_\_\_.

Claims 1, 5 is rejected under 35 U.S.C. 102(b) as being anticipated by USP 5874291 to Bielefeldt. The patent describes injecting TCE-contaminated ground sites which comprise groundwater with bacteria that degrade or break down various contaminants (col 7 line 63 – column 8 line 7). Per claim 5, the ref. describes air stripping of the volatile contaminants.

Claims 1 – 4, 7,8,10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by USP 5057227 to Cohen (col / line 1/1-1/18).

Claims 5, 6, 12 are rejected under 35 U.S.C. 103(a) as being obvious over USP 5057227 to Cohen (col / line 2/49-4/35). It would have been obvious to have repeatedly contacted the active layer with air in order to encourage aerobic respiration by the bacteria, as taught by Cohen. Per claim 6, employment of a pump to move liquids is so ubiquitous in this field of endeavor that pumping of the liquids described by Cohen would have been obvious. It would have been obvious to have added a surfactant to improve interfacial contact between the bacteria, the contaminants, and to better solubilize the hydrocarbon species ~~in the~~ <sup>in the</sup> groundwater to render them more susceptible to bioremediation.

*CTB/alpha*

Claims 1, 2, 4, 6-8, 10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by USP 4990031 (col / line 5/25-8/58).

Claims 1-4, 7-10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by USP 6203703 to Yerushalmi (col / line 3/55-3/67).

Claim 11 is allowed.

571-272-1152

CHESTER T. BARRY  
PRIMARY EXAMINER

*Cherry*  
9/27/07